

Claims

- [c1] An X-ray system comprising:
 - an X-ray tube temperature sensor generating a temperature signal; and
 - a fan coupled to said temperature sensor, said fan having a speed that varies in response to said temperature signal.
 - [c2] A system as recited in claim 1 wherein said temperature sensor comprises a thermistor.
 - [c3] A system as recited in claim 1 wherein said thermistor is coupled to a heat exchanger.
 - [c4] A system as recited in claim 1 wherein said temperature sensor comprises a thermistor in parallel with a shape resistor.
 - [c5] A system as recited in claim 1 wherein said temperature sensor comprises a thermistor in parallel with a shape resistor, said thermistor and shape resistor being in series with a gain resistor.
 - [c6] A system as recited in claim 5 further comprising a shunt in parallel with said thermistor and said shape resistor, said shunt has an open positioned and a closed position.
 - [c7] A system as recited in claim 6 wherein said shunt is normally opened.
 - [c8] A system as recited in claim 6 wherein said shunt is thermally activated.
 - [c9] A system as recited in claim 1 wherein said temperature sensor has a non-linear output.
 - [c10] A CT system comprising:
 - an X-ray tube;
 - a heat exchanger coupled to the X-ray tube;
 - a temperature sensor generating a temperature signal;
 - a fan coupled to said temperature sensor, and
 - a controller generating a fan speed that varies in response to said temperature signal.

- [c11] A system as recited in claim 10 wherein said temperature sensor comprises a thermistor.
- [c12] A system as recited in claim 10 wherein said thermistor is coupled to a heat exchanger.
- [c13] A system as recited in claim 10 wherein said temperature sensor comprises a thermistor in parallel with a shape resistor.
- [c14] A system as recited in claim 10 wherein said temperature sensor comprises a thermistor in parallel with a shape resistor, said thermistor and shape resistor being in series with a gain resistor.
- [c15] A system as recited in claim 14 further comprising a shunt in parallel with said thermistor and said shape resistor, said shunt has an open positioned and a closed position.
- [c16] A system as recited in claim 15 wherein said shunt is normally opened.
- [c17] A system as recited in claim 15 wherein said shunt is thermally activated.
- [c18] A method of operating an X-ray system comprising:
measuring a temperature of an X-ray tube; and
controlling a fan speed in response to said temperature.
- [c19] A method as recited in claim 18 when a temperature reaches a predetermined temperature, maintaining a predetermined fan speed.
- [c20] A method as recited in claim 18 wherein controlling comprises controlling the fan speed non-linearly.